

OCR FOR STUDENTS WITH DISABILITIES

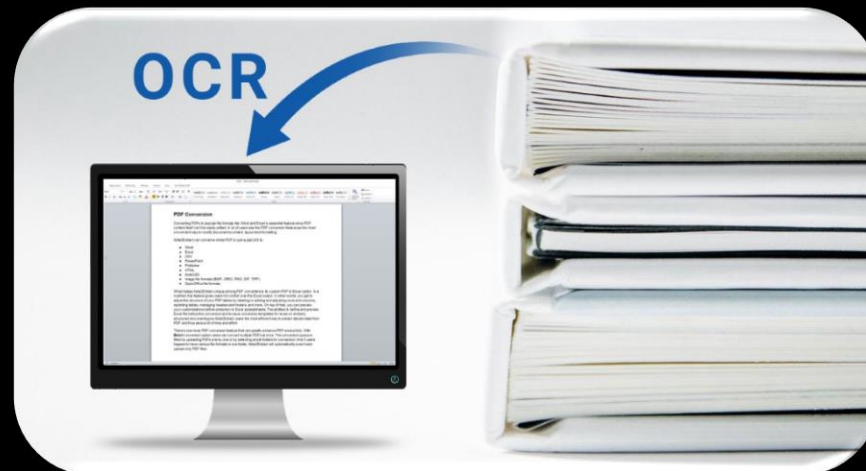
Presentation By
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OUTLINE OF PRESENTATION

- What is OCR?
- Assistive Technology Devices for OCR.
- Software for OCR.
- Tablet and Mobile Apps for OCR.
- Live demonstration of OCR technology.

WHAT IS OCR?

- **OCR** stands for Optical Character Recognition.
- It is a type of technology that recognizes text within a typed or digital document.
- The technology processes the text-based image by locating and recognizing characters, such as letters, numbers, and symbols.

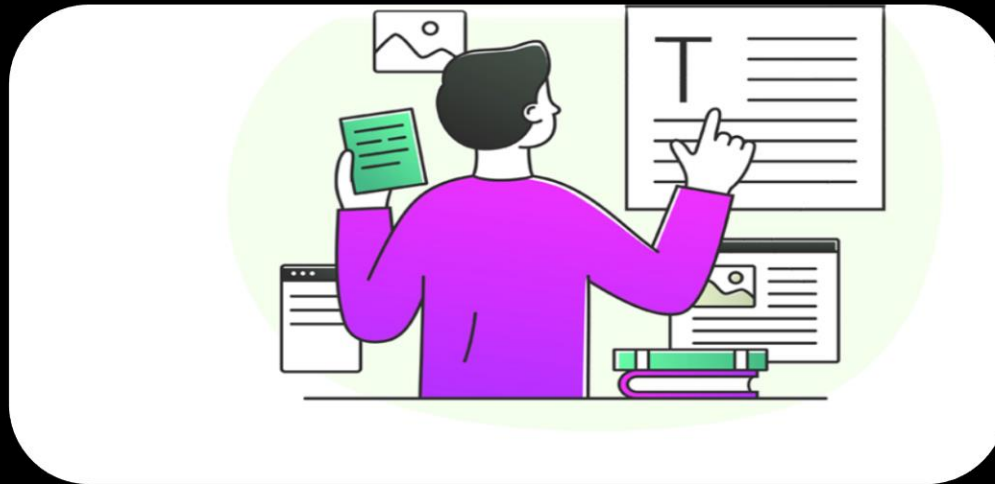


THINGS TO LOOK OUT FOR

- While most OCR technology is quite accurate, the end user should still plan on proofreading an OCR scan. Hearing it read back will alert the user to any errors.
- If the scanned document has poor contrast, hard to read characters, or complex graphics, this could impact the accuracy level.
- Best practice is to work with the original document to provide the best OCR scan.
- OCR doesn't create an instant accessible document.

WHO CAN BENEFIT FROM OCR?

- Individuals who struggle with Learning Disabilities.
- Individuals with Dyslexia.
- Individuals with Irlen Syndrome.
- Individuals who are Blind or have Low Vision.
- Auditory Learners.



WHERE CAN OCR BE FOUND

- Standalone Assistive Devices That Provide OCR.
- Assistive Software for Microsoft and Apple Computers.
- Built-In accessibility for Apple, Microsoft, and Android.
- Tablet and Mobile apps for Apple and Android smart phones.



An abstract graphic on the left side of the slide, featuring overlapping, flowing shapes in various shades of green and yellow, creating a sense of movement and depth.

ASSISTIVE TECHNOLOGY DEVICES FOR OCR

C-PEN READER PEN

- **\$285.00**, a portable scanning pen that reads text line-by-line using an embedded camera and text-to-speech.
- Pen displays scanned text on its display screen and is automatically read aloud.
- Looks up and reads out definitions of words.
- No Wi-Fi needed for use.



C-PEN CONNECT

- **\$130.00**, a portable Bluetooth enabled scanning pen that exports scanned text into a compatible app.
- Share text between devices or with fellow students.
- Multilingual with the ability to scan up to 10 languages.



ORCAM MYEYE 2

- **\$4,250.00**, a lightweight smart camera that attaches to almost any pair of glasses.
- Identifies products, faces, and text in real-time, using AI technology.
- Does not require an internet connection and can be used in 14 different languages.



ORCAM READ

- **\$1,990.00**, a smartpen that can read text from any surface.
- Capable of reading a full page of text and digital screens.
- Features voice commands and smart read features like “read headlines” and “read phone number.”
- Can be used with traditional or Bluetooth headphones.



REVEAL 16

- **\$4,295.00**, a desktop CCTV magnifier and OCR reading device.
- Features Diamond Edge technology which places a digital font over the existing font.
- Can also read books from online libraries and connect to apps like Google Classroom.



CONNECT 12

- **\$3,145.00**, a portable, electronic video magnifier that has a full touchscreen with OCR.
- Has a battery that lasts up to 7 hours and has access to the Android platform's applications.
- When being used in a classroom, the device can connect to a Promethean, TeamViewer, or VNC smart board.



MAGNILINK S PREMIUM 2

- **\$3,995.00**, a portable, computer compatible magnifier that provides OCR support.
- Text can be read line by line, word by word, character by character, picture and word and picture and line, and can be presented on the screen, synchronized with the audio.



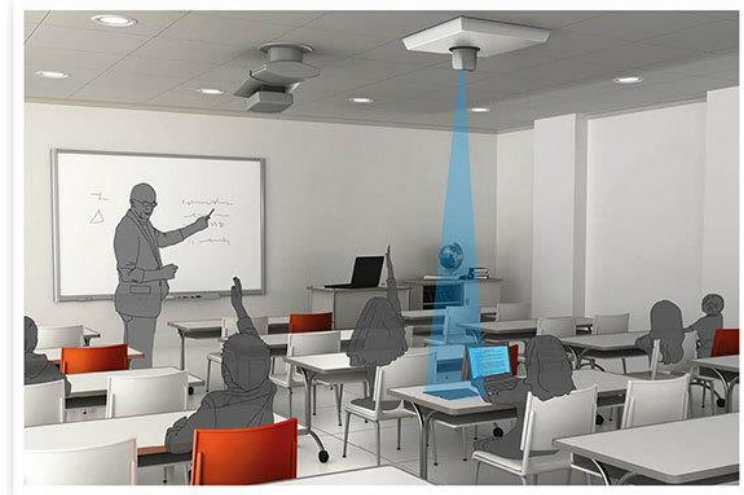
MAGNILINK VOICE 2

- **\$2,495.00**, a portable reading machine that scans printed text and reads it using synthesized speech.
- Has a remote to control the speed of speech, the volume, and how the text is read back.
- Can be connected to an external monitor to provide visual support.



MAGNILINK AIR UNO

- **\$7,995.00**, a wireless camera that can be used both as a document and distance camera. Can be mounted in the ceiling tiles.
- Images from the board or a document can be wirelessly transferred to a user's computer.
- The OCR component can then read content back to the user.



An abstract graphic on the left side of the slide, featuring flowing, organic shapes in various shades of green and a bright yellow-orange at the top, creating a sense of movement and depth.

ASSISTIVE SOFTWARE FOR OCR

NARRATOR ON WINDOWS

- Narrator is a free, built-in screen reader on Windows based computers.
- Narrator will read all the content highlighted within its blue box.
- New features include automatic reading of emails, summary of webpage, and breakdown of webpage title from a long URL.



VOICEOVER ON MAC

- Free built-in screen reader software on Mac OS computers.
- The ability to use quick commands and short cuts for a more seamless experience.
- New features include ability to read audio graphs, ability to read in different languages, and alerts to when there is a signature line.



TALKBACK ON ANDROID

- Free built-in screen reader available on all Android devices.
- Every item pressed will be read out loud to the user.
- New features include speak caller ID, automatically scroll lists, and shake to start continuous reading.



VOICEOVER ON IOS

- Free built-in screen reader software available on all Apple iPhones and iPads.
- Access features with a variety of different gestures that will read screen content back to the user.
- Ability to customize how much VoiceOver tells the user.
- Users can use speak screen on webpages.



LIVE TEXT ON IOS

- **FREE**, built-in feature starting with iOS 15 for iPhone and iPadOS 15.1 for iPads.
- Live Text recognizes text within your photos and online images.
- To use you simply point your devices camera at a photo with text and the Live Text button will appear for you to interact with the text.



JAWS: SCREEN READER

- **\$80.00 for Student License**, premiere screen reading software for individuals who are blind or visually impaired.
- Speech and braille interface output is provided to allow individuals to navigate a computer, read documents, and use the internet.



NVDA

- **FREE**, screen reader that stands for Non-Visual Desktop Access.
- Available only for Windows based computers running version 7 or higher.
- Company relies entirely on donations to keep making improvements for the rapidly advancing technology world.



KURZWEIL 3000

- **\$500 per year**, Kurzweil 3000 literacy software reads aloud highlighted text, documents, and online HTML content.
- A built-in OCR software allows reading scanned text and texts presented as graphics.
- Fun Fact: The First Kurzweil machine cost \$30,000.



KOFAX OMNIPAGE

- **\$149.00**, a complete OCR solution, designed for businesses but can be used by individuals.
- Primary purpose is using an OCR scanner to convert scanned documents into editable documents. Can be useful when making documents accessible.
- Once in an editable mode, the user can then use a variety of AT to have it read back to them.





ASSISTIVE APPS FOR OCR

TIPS FOR USING OCR SCANNING APPS



Lighting can make a big difference in the quality of the scan or picture.



Hold the device **directly above** the document.



Hold Steady. The stiller and steadier your device the better the scan or picture will be. When possible, use a stand or holder to hold the device steady while you take the picture.



Limit or remove items in the background.

GOOGLE APP

- **FREE**, available for Android and iOS devices.
- Google Lens is a feature built-in to the Google app that uses the device's camera to search images.
- Users can translate text, get help with homework, extract text, plus use images to do shopping, and identify plants and animals.
- Android users can use the Google Lens app



CAMSCANNER APP

- **FREE, Premium version: \$4.99/month.**
- Available for Android and iOS devices.
- Scanning app that recognizes text.
- Easily share your document as a PDF, JPG, Word, or Excel file.
- Free version is very limited.



ADOBE SCAN APP

- **FREE**, Available for Android and iOS devices.
- Scans anything from notes, whiteboards, business cards, receipts, ID cards, and photos.
- Batch scanning and PDF markup available
- Premium subscription available to sync documents across Adobe Cloud and use features like combining scans and increasing OCR capacity from 25 to 100 pages.



PEN TO PRINT APP

- **FREE**, Premium Subscription at \$1.99/month, \$9.99/year, or \$29.99 One-Time Purchase.
- Available for Android and iOS devices.
- Scans handwriting and converts to digital text.
- Free version is limited to just scanning.
- Premium version allows users to export text, edit, copy, and paste.



SPEECHIFY APP

- **FREE**, Premium Subscription at \$139.00/year
- Available for Android and iOS devices.
- Text-to Speech-scanning app that uses OCR to read PDF's, scanned pages, and websites.
- Speechify is also available for desktop and as a Chrome and Safari web browser extensions.



MICROSOFT LENS APP

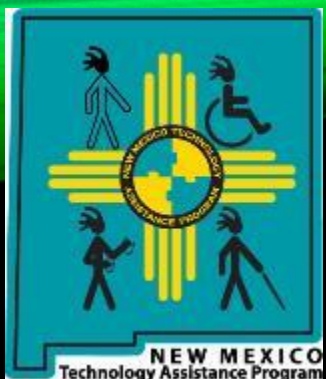
- **FREE**, available for Android and iOS devices.
- Scans pictures of documents, receipts, blackboards, whiteboards, and business cards then converts to digital text.
- Immersive Reader feature provides powerful reading tools including text-to-speech
- Can now convert handwriting!



SEEING AI APP

- **FREE**, available for iOS devices only.
- App is designed for individuals who are blind or have low vision.
- Uses "channels" to scan the users' surroundings, barcodes, money, handwriting, and documents
- Fully compatible with VoiceOver
- No Android equivalent available that can read handwriting well, but Lookout and Envision AI are great for reading printed text.





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